

BUSINESS MEETING  
BEFORE THE  
CALIFORNIA ENERGY RESOURCES CONSERVATION  
AND DEVELOPMENT COMMISSION

In the Matter of:                     )  
  )  
Business Meeting                     )  
  )  
\_\_\_\_\_                              )

CALIFORNIA ENERGY COMMISSION  
HEARING ROOM A  
1516 NINTH STREET  
SACRAMENTO, CALIFORNIA

WEDNESDAY, JANUARY 5, 2005  
10:03 A.M.

Reported by:  
Christopher Loverro  
Contract No. 150-04-001

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

COMMISSIONERS PRESENT

James D. Boyd, Acting Chairman

John L. Geesman

Jackalyne Pfannenstiel

STAFF PRESENT

Robert Therkelsen, Executive Director

William Chamberlain, Chief Counsel

Song Her, Secretariat

Alec Jenkins

Cheryl Raedel

Martha Brook

Art Soinski

PUBLIC ADVISER

Margret Kim

ALSO PRESENT

Wayne Bleesner

ADI Thermal Power Corporation

Manuel Alvarez

Southern California Edison Company

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1 P R O C E E D I N G S

2 10:03 a.m.

3 ACTING CHAIRMAN BOYD: I call the  
4 meeting to order. We'll recite the Pledge.

5 (Whereupon the Pledge of Allegiance was  
6 recited in unison.)

7 ACTING CHAIRMAN BOYD: Okay, we have two  
8 consent calendar items. Do I have a motion?

9 COMMISSIONER GEESMAN: So moved.

10 COMMISSIONER PFANNENSTIEL: Second.

11 ACTING CHAIRMAN BOYD: A move and a  
12 second.

13 All in favor, say aye.

14 (Ayes.)

15 ACTING CHAIRMAN BOYD: Any opposed?  
16 Ayes have it. It was approved.

17 Item number 2, Possible approval of  
18 eight grant applications totaling \$599,063 from  
19 the energy innovation small grant program.

20 Good morning.

21 MR. JENKINS: These projects --

22 ACTING CHAIRMAN BOYD: I think you need  
23 to tell the court reporter who you are.

24 MR. JENKINS: Sorry. I'm Alec Jenkins  
25 and I manage the energy innovation small grant

1 program.

2 ACTING CHAIRMAN BOYD: Do you have a  
3 green light? Now you have a green light.

4 MR. JENKINS: Good morning; I'm Alec  
5 Jenkins. I manage the energy innovation small  
6 grant program.

7 We have eight competitively selected  
8 grant projects to bring before you. They've been  
9 approved for consideration by the R&D Committee.  
10 Each project represents an innovation with the  
11 potential to bring benefit to California electric  
12 ratepayers.

13 Three are in the environmental preferred  
14 advanced generation area; three in the renewables;  
15 and one each in the building efficiency and  
16 environmental areas.

17 The total funding requested is \$599,063.  
18 And I recommend them to the Commission for  
19 approval.

20 ACTING CHAIRMAN BOYD: Thank you. Any  
21 questions?

22 COMMISSIONER GEESMAN: Mr. Chairman, I'd  
23 like to move approval, but first acknowledge Alec,  
24 I think this is your last cycle of this?

25 MR. JENKINS: Well, I did change my

1 mind, and so I'm staying on for awhile.

2 COMMISSIONER GEESMAN: I'm quite pleased  
3 to hear that. I'm quite pleased to hear that.

4 MR. JENKINS: Thank you, Commissioner  
5 Geesman.

6 COMMISSIONER GEESMAN: I was about to  
7 say how much a part of our successful PIER program  
8 the small grants activity has been. But I will  
9 defer those remarks to some future cycle.

10 So, I'll move the item, Mr. Chairman.

11 COMMISSIONER PFANNENSTIEL: And I'll  
12 second the motion.

13 ACTING CHAIRMAN BOYD: A motion and a  
14 second. Any questions?

15 Seeing none, all in favor say aye.

16 (Ayes.)

17 ACTING CHAIRMAN BOYD: Opposed? Ayes  
18 have it, three to nothing. Item approved.

19 Item number 3, Governor's Office of  
20 Planning and Research. Possible approval of  
21 contract 200-04-006 for \$45,000.

22 Good morning.

23 MS. RAEDEL: Hi, I'm Cheryl Raedel; I'm  
24 the manager of the contracts office. This is our  
25 annual agreement with the Office of Research and

1 Planning that we contribute \$45,000 to the  
2 Administration.

3 ACTING CHAIRMAN BOYD: Very diplomatic  
4 presentation.

5 (Laughter.)

6 COMMISSIONER PFANNENSTIEL: Mr.  
7 Chairman, I'll move the item.

8 COMMISSIONER GEESMAN: Second.

9 ACTING CHAIRMAN BOYD: It's been moved  
10 and seconded. Any questions?

11 Hearing none, all in favor say aye.

12 (Ayes.)

13 ACTING CHAIRMAN BOYD: Opposed? None.

14 MS. RAEDEL: Thank you.

15 ACTING CHAIRMAN BOYD: Approved three to  
16 nothing. Thank you.

17 Item number 4, Architectural Energy  
18 Corporation. Possible approval of contract 500-  
19 04-016 for \$543,800 for a pilot project to  
20 integrate building commissioning into the state  
21 building design and construction process.

22 Good morning.

23 MS. BROOK: Good morning, I'm Martha  
24 Brook with the PIER buildings program. New state  
25 buildings often do not operate as intended,

1       wasting energy, decreasing equipment life and  
2       reducing the productivity and comfort of the  
3       building occupants.

4               The goal of this project is to improve  
5       the realization and persistence of energy  
6       efficiency in new state buildings. The objective  
7       of this project is to increase the quantity and  
8       consistency of commissioning services used by the  
9       Department of General Services real estate  
10      services division during their new building  
11      construction processes.

12             This objective will be achieved by  
13      collaborating with key staff and management within  
14      the Department of General Services to develop  
15      procedures, protocols and specifications for  
16      commissioning new state buildings that can be  
17      integrated with and implemented through Department  
18      of General Services procedures and personnel.

19             In addition, this project will provide  
20      information on the costs and benefits of  
21      commissioning state buildings for use by DGS and  
22      justifying personnel and procedural changes to the  
23      state's building construction processes.

24             At this time I'd like to answer any  
25      questions that you may have.

1           ACTING CHAIRMAN BOYD: Thank you. Any  
2 questions?

3           COMMISSIONER GEESMAN: I'd simply say  
4 that it's a sorely needed task that the R&D  
5 Committee attaches a great deal of priority to;  
6 and it's my hope that the lessons learned from  
7 this exercise can also be translated to the local  
8 government level for those jurisdictions that also  
9 will be commissioning a large number of new  
10 buildings in the future.

11           So, I'll move the item.

12           COMMISSIONER PFANNENSTIEL: I'll second.

13           ACTING CHAIRMAN BOYD: There's been a  
14 motion and a second. Any questions?

15           Hearing none, all in favor, aye, please.  
16           (Ayes.)

17           ACTING CHAIRMAN BOYD: Opposed? None.  
18 Passes three to nothing. Thank you.

19           MS. BROOK: Thank you.

20           ACTING CHAIRMAN BOYD: And I would  
21 agree, a much-need and finally-achieved item.

22           Item number 5, ADI Thermal Power  
23 Corporation. Possible approval of contract 500-  
24 04-017 for \$600,000 to perform a proof of concept  
25 and test validation of a 25 kilowatt dual shell

1 Stirling engine.

2 Good morning.

3 MR. SOINSKI: Good morning,  
4 Commissioners. I am Art Soinski; I am the acting  
5 team lead of the environmentally preferred  
6 advanced generation program area in the PIER  
7 program. And with me is Wayne Bleesner, the  
8 President and Technology Officer for ADI Thermal  
9 Power Systems.

10 After almost 200 years Stirling engines  
11 are finally becoming commercial. In fact, the  
12 PIER program is funding a demonstration of a 29  
13 percent efficiency Stirling engine manufactured by  
14 SDM Stirling Engines, which will be installed next  
15 month in the Inland Empire Utilities Agency in  
16 southern California.

17 What I'm bringing today is a contract  
18 for a breakthrough technology which has the  
19 potential to reach 45 percent efficiency in a  
20 Stirling engine, compared to the 29 percent that's  
21 available now.

22 The way that this efficiency is achieved  
23 is by operating at higher temperatures. A  
24 Stirling engine operates on the Carnot cycle, and  
25 the efficiency is proportional to the difference

1 between the hot temperature and the cold  
2 temperature.

3 And by a number of innovative design  
4 features ADI has been able to achieve higher  
5 temperatures, and therefore higher efficiencies of  
6 45 percent without going to exotic materials such  
7 as ceramics.

8 This could very well be a groundbreaking  
9 technology -- or breakthrough technology because  
10 Stirling engines have the advantage of separating  
11 the combustion process from the power generation  
12 process. It's an external combustion type engine  
13 which can use any fuel, including solar energy.  
14 In fact, that was one of the earlier applications  
15 of Stirling engines.

16 So the engine will have the potential  
17 not only to reach these high efficiencies, which  
18 is pretty much unprecedented in a 25 kilowatt  
19 engine, but also will be able to meet the CARB  
20 2007 NOx and CO standards because of the fact that  
21 the optimization of the engine performance does  
22 not depend upon the optimization of the combustion  
23 process.

24 I recommend that the Commission approve  
25 this contract with ADI.

1           ACTING CHAIRMAN BOYD: Thank you. While  
2 I'm very familiar with Stirling engines, not for  
3 the period of time you referenced, I'm intrigued  
4 by this personally.

5           We've heard the item. Any questions?

6           COMMISSIONER GEESMAN: I'll move the  
7 item.

8           COMMISSIONER PFANNENSTIEL: I'll second.

9           ACTING CHAIRMAN BOYD: There's been a  
10 motion and a second. No questions?

11          All in favor?

12          (Ayes.)

13          ACTING CHAIRMAN BOYD: Opposed? None.  
14 Passes three to nothing. Good luck with your  
15 project.

16          MR. BLEESNER: Thank you.

17          MR. SOINSKI: Thank you, Commissioners.

18          ACTING CHAIRMAN BOYD: All right.  
19 According to my agenda we're down to the item on  
20 approval of minutes of the prior meeting.

21          COMMISSIONER PFANNENSTIEL: I'll move  
22 the item.

23          COMMISSIONER GEESMAN: Second.

24          ACTING CHAIRMAN BOYD: It's been moved  
25 and seconded that we approve the minutes of the

1 meeting of December 15th.

2 All in favor, aye.

3 (Ayes.)

4 ACTING CHAIRMAN BOYD: Opposed? None.

5 Passes three to nothing.

6 Any Commission Committee and Oversight  
7 reports? Hearing none.

8 Chief Counsel's report?

9 MR. CHAMBERLAIN: Yes, Commissioners.

10 We have a need for a closed session on two items  
11 relating to potential litigation.

12 ACTING CHAIRMAN BOYD: Okay, thank you.

13 The Executive Director's report.

14 MR. THERKELSEN: Good morning,  
15 Commissioners. On this week, 30 years ago, the  
16 Energy Commission came into existence. And I  
17 think for many of us that have been with the  
18 agency for some period of time, we didn't really  
19 know whether it would still be around 30 years  
20 later.

21 There have been several times that I  
22 think our future has been in question. And  
23 obviously energy during that 30 years has been a  
24 very dynamic subject, controversial subject, and  
25 continues to be that today.

1           I think one of the reasons that we are  
2           still here is because of the dedication and the  
3           service, not only of the Commissioners that have  
4           led the organization, but of the staff that have  
5           put their time and their efforts into maintaining  
6           the technical quality, producing products and  
7           being responsive.

8           In fact, the Commission has had and  
9           continues to have a reputation of being one of the  
10          most responsive, one of the most service oriented  
11          agencies in state government.

12          Anyway, I'd just like to say happy  
13          birthday to the Commission and thank you to the  
14          staff that have worked here during that period of  
15          time.

16          ACTING CHAIRMAN BOYD:  It's all work and  
17          no play; you don't even have a cake.

18          (Laughter.)

19          ACTING CHAIRMAN BOYD:  That's it?

20          MR. THERKELSEN:  That's it.

21          ACTING CHAIRMAN BOYD:  Well, happy  
22          birthday, Commission.  It seems like only  
23          yesterday I remember coming over here to the 25th  
24          anniversary, and it's already 30.  Time does fly.

25          Call for Legislative Director's report,

1 but I don't see the Legislative Director, so I  
2 assume we have nothing.

3 Public Adviser's report. Thank you, Ms.  
4 Kim, nothing.

5 All right, we're about ready to get to  
6 the public comment. And I'm informed that Mr.  
7 Alvarez has some public comment.

8 MR. ALVAREZ: Good morning,  
9 Commissioners, and a happy new year. I'm Manuel  
10 Alvarez with Southern California Edison.

11 I just wanted to bring you up to date on  
12 our last discussion on the retail price forecasts  
13 so you have some understanding of what has  
14 transpired in the last few weeks.

15 We've met with the staff of the  
16 Commission and there's been communications at  
17 various levels of the staff discussing some of  
18 those issues.

19 We do plan to develop a long-term price  
20 forecast post 2008, and are working towards a  
21 January 15th filing. And I guess that's about it.

22 ACTING CHAIRMAN BOYD: Thank you,  
23 appreciate that.

24 COMMISSIONER GEESMAN: We'll look  
25 forward to that, Mr. Alvarez.

1 MR. ALVAREZ: Thank you.

2 ACTING CHAIRMAN BOYD: Any other members  
3 of the public?

4 Okay, hearing none, as you heard we're  
5 going to move to a closed session on litigation  
6 matters. So hearing nothing I will adjourn the  
7 public meeting and we'll go to the closed session  
8 and close the meeting at the completion of that.

9 Thank you, everybody.

10 (Whereupon, at 10:17 a.m., the business  
11 meeting was adjourned to closed  
12 session.)

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## CERTIFICATE OF REPORTER

I, CHRISTOPHER LOVERRO, an Electronic Reporter, do hereby certify that I am a disinterested person herein; that I recorded the foregoing California Energy Commission Business Meeting; that it was thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said meeting, nor in any way interested in outcome of said meeting.

IN WITNESS WHEREOF, I have hereunto set my hand this 6th day of January, 2005.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345